

SRETENOVIC, M.

The raw-material market. p. 44.

Periodical: TEKSTIL

Vol. 8, no. 1, Jan. 1959.

TECHNOLOGY

SO: Monthly List of East European Accessions (EEAI) LC

Vol. 8, no. 4  
April 1959, Uncl.

KHVOSTOVA, V.A.; SRETENSKAYA, N.G.

Struverite containing tin from rare-metal granite pegmatites. Trudy IMGRE no.16:137-140 '63. (MIRA 16:8)

SRETENSKAYA, N.G.

Distribution of impurity elements of microcline from pegmatites  
in eastern Kazakhstan. Dokl. AN SSSR 154 no. 3:621-623 Ja '64.  
(MIRA 17:5)

1. Institut mineralogii, geokhimii i kristalloghimii redkikh  
elementov. Predstavleno akademikom N.V.Belovym.

SRETENSKAYA, N.I.

Materials on the phytoplankton of some commercial fish ponds of  
White Russia. Biul. Inst. biol. AN BSSR no.2:47-58 '57. (MIRA 11:2)  
(White Russia--Phytoplankton) (Fish ponds)

SUMTSKAYA, N.I.

Volume and weight of leading forms of pond phytoplankton from fish farms of the White Russian Poles'ye. Dokl. AN BSSR 5 no.1:41-45  
Ja '61. (MIRA 14:2)

1. Otdel fiziologii i sistematiki nizshikh rasteniy AN BSSR. Predstavleno akademikom AN BSSR V.F. Kuprevichem.  
(White Russia—Phytoplankton)

SRETENSKAYA, V., studentka pedagogicheskogo instituta (g. Orel)

Interesting meeting. Pozh.delo 7 no.5:14 My '61. (MIRA 14:5)  
(Odessa—Pioneers (Communist youth)) (Fire extinction—Societies)

SRETENSKIY, A.I.

ARTEM'YEV, F.A.; SRETENSKIY, A.I., redaktor; GLUKHOYEDOVA, G.A.,  
tekhnicheskiiy redaktor.

[Labor regulation of medical workers] Regulirovanie truda medi-  
tsinskikh rabotnikov. Moskva, Gos. izd-vo med. lit-ry, 1954. 197 p.  
(Medical service employees) (MIRA 7:8)

KRASHKEVICH, Kirill Vasil'yevich; MIRONOV, Vasiliy Petrovich;  
TARASOV, Veniamin Vasil'yevich; NAUMOV, N.P., prof., red.;  
SRETENSKIY, A.I., red.; LAZAREVA, L.V., tekhn. red.

[Medical parasitology; general part] Meditsinskaia parazi-  
tologiya; obshchaia chast'. Moskva, Izd-vo MGU, 1963. 139 p.  
(MIRA 16:7)

(PARASITOLOGY)



VOL'FE, Isack Maksimovich, dots.; SRETENSKIY, A.I., red.

[Reactions to vaccinations; mechanisms and prevention]  
Privivochnye reaktsii; mekhanizmy i profilaktika. Mo-  
skva, Izd-vo Mosk. univ. 1964. 171 p. (MIRA 17:6)

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
SRETENSKIY, K. Z.																			
<p>1379. QUALITATIVE CHARACTERISTIC OF PEAT FUEL. Sretenskii, K.Z. (Torfyannaya Prom., 1946, 23, No. 2, 15-18) An analysis of data assembled over a period of 11 years. Is presented. The data concern the moisture content (W), ash content (A), heat of combustion of the combustible component (Q<sub>o</sub>), i.e., dry, ashless peat, and calorific value of peat (as used) (Q<sub>w</sub>). Of these W varied most. The average W of hydraulically mined peat (hydropeat) was 36.5% with the bulk (63%) varying within 3-04-%. The average A values of the 3 grades of peat were 10.4, 8.7, and 7.5%, respectively. The variation within the bulk, 61, 70, and 80% was 7-12, 6-11, and 3-9%. The Q<sub>o</sub> values were 5610, 5660, and 5660, and 5650 kg.-cal., and the respective Q<sub>w</sub> values 2780, 2350, and 2950 kg.-cal.</p> <p>C.A.</p>																			
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM SYMBOLISM</p> <p>FROM WLP ONLY ONE</p> <p>RELATIONS</p>																			

SRETENSKIY, L.N. (Moskva)

Vibration of a rotating string. Inzh.zhur. 2 no.2:352-355  
'62. (MIRA 15:6)

(Elastic rods and wires--vibration)

SRETENSKAYA, N.I.

Desmidiaceous algae in the ponds of White Russian Polesye.

Vestsi AN BSSR. Ser. biial. nav. no.4:79-83 '62.

(MIRA 17:8)

SRETENSKIY, L.N. (Moskva)

Chaplygin's approximate method. Inzh. zhur. 3 no.1:135-136 '63.  
(MIRA 16:10)

(Gas dynamics)

SRATEISKII, L. N.

(Leonid Nikolayevich)

O vliyanií prisoyedineniykh nablyudeniy na koeffitsiyent korrelyatsii. II., Geofiz. Zhurn.,  
14 (1926), 50-53.

30: Mathematics in the USSR, 1917-1947  
edited by Kurosh, A. G.,  
Karlsruhevich, A. I.  
Rashevskiy, P. K.  
Moscow-Leningrad, 1948

SRETENSKIY, L. N.

On the Curving of Surfaces. Matem. Ab. (Mathematical Symposia), 1929, Vol 36,  
No. 2, pp. 109-111 (Summary in French).

SRETENSKIY, L. N.

On a Single Generalization of the Tetrahedral Complex. [Abstracts of Report.]  
In the book: Vsesoyuznyy s'ezd matematikov v Khar'kove 24-29 VI 1930, (First  
All-Union Conference of Mathematicians in Khar'kov, 24-29 June 1930). Bulletin  
No. 1, Khar'kov, State Publishing House, 1930, p. 42.



SRETENSKIY, L. N.

Works of Luigi Bianchi on the Transformation of Surfaces. Tr. Geometr. Kruzhka NII  
matem. i. mekhan. MGU (Words of the Geometrical Circle of the Scientific Research  
Institute of Mathematics and Mechanics, Moscow State University), 1930, No. L,  
pp. 27-36.

SRETENSKIY, L. N.

Sur une generalisation du complexe tetraedral. Matem. sb., (Mathematical Symposia),  
1930, Vol 37, Nos. 1-2, pp. 91-95. (Summary in Russian.)

19

SRETENSKIY, L. N.

Memoire sur les equations de M. V. Volterra. Matem. Sb. (Mathematical Symposium),  
1931, Vol. 38, Nos. 1-2, pp. 1-44. (Summary in Russian).

SRETENSKIY, L. N.

On Extrapolation. In the book: Nauchnyye trudy geofizicheskoy observatorii v Kuchine i teoreticheskogo otdela instituta (Scientific Works of the Geophysical Observatory in Kuchin and the Theoretical Division of the Institute) Moscow, state Geophysical Institute, 1931, p. 144. (Byull, Gos. Geofiz. in-ta (Bulletin of the State Geophysical Institute), No. 36).

SRETENSKIY, L. . .

Potentsial'nyye poverkhnosti s ploskimi liniyami krivizny. Izv. sar. fiz.-matem. (1933), 903-918.

SO: Mathematics in the USSR, 1917-1947  
edited by Kurosh, A. G.,  
Markushevich, A. I.,  
Rashevskiy, P. K.  
Moscow-Leningrad, 1948

SRETENSKIY, L. N.

On the Transfer of Heat by Liquids. Zh. geofiziki (Journal of Geophysics),  
1933, Vol. 3, No. 1, pp. 4-31, Figs.

STRETENSKIY, L. N.

On the Motion of a Glider on Deep Water. Publishing House of the Academy  
Of Sciences USSR, Department of Mathematics and Natural Sciences, 1933, No. 6,  
pp. 4-21, Figs.

SRETENSKIY, L. N.

Waves on the Surface of Separation of two Liquids as Applied to the Phenomenon of "Dead Water". Zh. Geofiziki, 1934, Vol. 4, No. 4, pp. 332-370, Figs



SRETENSKIY, L. N.

On the Theory of the Glider. In the book: Trudy I Vsesoyuznoy konferentsii po gidrodinamike (Works of the First All-Union Conference on Hydrodynamics), Moscow, Central Aero-Hydrodynamical Institute, 1935, pp. 82-93.

SRETENSKIY, L. N.

The Heating of a Stream of Liquid by Solid Walls. PMM (Applied Mathematics and Mechanics). 1935, Vol. 2, No. 2, pp. 163-179.

SRETENSKIY, L. N.

On One Problem of the Minimum in the Theory of the Ship. Dan SSSR (Reports of the Academy of Sciences USSR), 1935, Vol. 3, No. 6, pp. 247-248, Sur un probleme de minimum dans la theorie du navire. Cv.R7.Acad. Sci. URSS, 1935, Vol. 3, 247-248.

SVETENSKIY, L. N.

Differential Geometry. BSE. Vol. 22, 1935, pp. 608-618. Bibliography of 6  
Titles /In collaboration with I Burstin./

SRETENSKIY, L. N.

General Theory of Influxes in Inhomogeneous Liquid. Zh. geofiziki, 1935, Vol. 5, No. 4, pp. 395-409. Bibliography of 3 Titles.

SRETENSKIY, L. N.

"Wave Motion of Fluids," ONTI, Moscow, 1936

4524. Wave Resistance of a Ship Moving on the Surface of Water of Finite Depth. L. Bretzenhild. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 2, 7, pp. 245-247, 1958. In French.—The paper gives a résumé of researches of which a full account will be published in the Transactions of the Joukowski Central Hydrodynamical Institute. J. H. Michell (see Abstract 904 (1906)) calculated the wave resistance for the infinite depth with an idealized ship form (in which the inclination of the surface to the plane of symmetry was taken to be everywhere small). The results are here generalised to the case of an unlimited sheet of water of finite depth, and then to the case of a ship moving on the surface of an infinitely long canal of finite depth and finite breadth. S. G.

4524. Wave Resistance of a Ship Moving on the Surface of Water of Finite Depth. L. Bretzenhild. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 2, 7, pp. 245-247, 1958. In French.—The paper gives a résumé of researches of which a full account will be published in the Transactions of the Joukowski Central Hydrodynamical Institute. J. H. Michell (see Abstract 904 (1906)) calculated the wave resistance for the infinite depth with an idealized ship form (in which the inclination of the surface to the plane of symmetry was taken to be everywhere small). The results are here generalised to the case of an unlimited sheet of water of finite depth, and then to the case of a ship moving on the surface of an infinitely long canal of finite depth and finite breadth. S. G.

4524. Wave Resistance of a Ship Moving on the Surface of Water of Finite Depth. L. Bretzenhild. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 2, 7, pp. 245-247, 1958. In French.—The paper gives a résumé of researches of which a full account will be published in the Transactions of the Joukowski Central Hydrodynamical Institute. J. H. Michell (see Abstract 904 (1906)) calculated the wave resistance for the infinite depth with an idealized ship form (in which the inclination of the surface to the plane of symmetry was taken to be everywhere small). The results are here generalised to the case of an unlimited sheet of water of finite depth, and then to the case of a ship moving on the surface of an infinitely long canal of finite depth and finite breadth. S. G.

NOVICHKIN, N.S.

Teoreticheskoe issledovanie o volnovom soprotivlenii. Moskva, 1937. 55p.,  
diagr. (VNAI. Trudy, no. 319)

Summary in English.

Title tr.: A theoretical study of wave resistance.

A911.M65 no. 319

SC. Aeronautical Science and Aviation in the Soviet Union. Library of  
Congress, 1955.



SRETENSKIY, L. M.

O zatukhanii vertikal'nykh kolebani tsentra tiazhesti plavaiuschikh tel. Moskva, 1937. 12 p., diagrs. (TSAGI. Trudy, no. 330)

Title tr.: Damping vertical oscillations of center of gravity of floating bodies.

QA911.M65 no. 330

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

SRETENSKIY, L. N.

On the Motion of a Free Tidal Wave Within the Polar Basin: Reflection of the Kelvin Waves. Izv. AN SSSR, Seriya geofiz. (News of the Academy of Sciences USSR, Geophysical Series), 1937, No. 3, pp. 383-402, Figs., Summary in English.

SRETENSKIY, L. N.

On the Wave Resistance of a Ship During Nonsteady-state Motion. In the book:  
Teoreticheskiy sbornik TsAGI (Theoretical Collection of the Central Aero-Hydrodynamical  
Institute), 4. Moscow, Central Aero-Hydrodynamical Institute, 1937, pp. 16-19.  
Summary in English. (Tr. TsAGI, No. 301).

SRETENSKIY, L. N.

"On the Damped Oscillations of the Center of Gravity of Floating Bodies,"  
Trudy Tsentral'nogo Aero-Dinamicheskogo Instituta, No.330, 1937

SRETENSKIY, L. N.

Motion of a Free Tidal Wave in a Rotating Channel. Uch. zap. MGU (Scientific Notes of Moscow State University), 1937, Vol. 7, Mekhanika (Mechanics), pp. 20-42, Figs., Summary in English.

SHCHENSKIĭ, L. N.

Dvizhenie tsilindra pod poverkhnost'iu tiazheloi zhidkosti. Moskva, 1938. 28 p.,  
diagr. (TSAGI. Trudy, no. 346)

Title tr.: Motion of a cylinder under the surface of a heavy fluid.

QA911.M65 no. 346

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,  
1955

SRETENSKIY, L. N.

The Application of the Legendre Transformation to the Theory of the Jet.  
In the book: Teoreticheskiy sbornik TsAGI. 5. Moscow, Central Aero-  
Hydrodynamical Institute, 1938, pp. 26-40. Figs. (Trudy TsAGI, No. 342).

SRETENSKIY, L. N.

One Converse of the Problem of the Potential Theory. Izv. AN SSSR, seriya mat.  
(News of the Academy of Sciences USSR, Mathematical Series, 1930, Vol. 2, No. 5-6,  
pp. 551-570. (Summary in English), Bibliography of 6 Titles.



SRETENSKIY, L. N.

The Application of Integral Invariants to the Problem of the Motion of a Liquid Ellipsoid. Uch. zap. MGU, 1938, No. 24, Mekhanika, 2, pp. 22-27. Summary in English.

SRETENSKIY, L. N.

Theory of Equilibrium Contours of a Liquid Rotating Mass. Usp. matem. nauk.  
(Advances in Mathematical Sciences), 1938, No. 5, pp. 187-230.

CHERNIKII, L. I.

K teorii volnovogo soprotivleniia. Moskva, 1959. 28 p., diagrs. (TSAMI. Izudy, no. 456)

Title tr.: On the theory of wave resistance.

English translation, 22 typewritten pages, available at DNACA.

DNACA RPB (Microfilm)

30. Aeronautical Science and Aviation in the Soviet Union. Library of Congress, 1955.

SRETENSKIY, L. N.

On the Gravitational Oscillations of a Gas Sphere. PMM, 1940, Vol. 4,  
Nos. 5-6, pp. 87-104, Figs. Bibliography of 2 Titles, Summary in English.

1. SREKHODIN, L. N. , corrlsmb of Academy of Science

2. USSR (600)

"Theory of Hydroplane," Iz Ak. Nauk SSSR, Todel. Tekh. Nauk, No. 7, 1940.  
Submitted 5 Apr. 1940.

9. Report G-1330, 25 Oct. 1951.

SRETENSKIY, L. N.

O volnakh na poverkhnosti vyazkoi zhidkosti (Waves on the Surface of a Viscous Liquid), Part 1. Moscow, Office of New Technology, Peoples Commissariat of the Aviation Industry, 1941, p. 34, (Tr, TsAGI, No 541).

SHTELSKIY, L. I.

Cor. Mbr., Acad Sci, USSR (-1943-)

"In Memory of Academician S. A. Chaplygin," Iz. AK. Nauk SSSR, Utdel, Tekh, N. 3-4  
1943.

BR-52059019

SRETENSKIY, L. N.

Newtonian Theory of Tides and Contours of the Earth. In the book:  
Isaak N'yuton. 1648-1727. Sbornik Statei k trekhsotletiyu so dnya rozhdeniya  
(Issac Newton, 1648-1727, Collection of Articles on the 300th Anniversary  
of his birth). Moscow-Leningrad, Publishing House of the Academy of Sciences  
USSR, 1943, pp. 211-243. Figs.



~~S~~RETENSKIY, L. N.

An Approximate Method For Solving Problems of the Flowing of a Gas Stream Around Bodies. In the book: Referaty nauchno-issledovatel'skikh rabot za 1943-1944 gody. Otdelenie fizikomatematicheskikh nauk An SSR (Abstracts of Scientific Research Works for 1943-44. Department of Physico-Mathematical Sciences, Academy of Sciences USSR), Moscow-Leningrad, Publishing House of the Academy of Sciences USSR, 1945, p. 81.

GANTMAN, L. S.

Corresponding Member, Academy of Sciences USSR. (-1945-)

"Circumvention of Flat Contours by a Flow of Gas."

Nos. 7-8, 1945.

Iz. Ak. Nauk. SSSR. Otdel. Tekh. Nauk.

BR-52059019

SRETENSKIY, L. N.

The Propagation of the Semi-diurnal Tidal Wave in the Water Hemisphere of the Earth. Izv An SSSR, seriya geogr, i geofiz. (News of the Academy of Sciences USSR, Geographical and Geophysical Series), 1945, Vol. 9, No. 3, pp. 230-239. Bibliography of 2 Titles. Summary in French.

SRETENSKIY

SRETEMENII, Leonid Nikolayevich

Science

Theory of Newton's potential, Moskva, Gos. izd-vo tekhn.-teoretich. lit-ry, 1946.

Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

SRETENSKIY, L. N.

Sretenskiy, L. N. On the waves produced by a ship moving  
in a circular path. Bull. Acad. Sci. URSS. Cl. Sci. Tech.  
[Izvestia Akad. Nauk SSSR] 1946, 13-22 (1 plate) (1946).  
(Russian)

Source: Mathematical Reviews,

Vol 8, No. 2

STRETENSKIY, L. N.

Influence of Variation of the Principal Dimensions of a Ship on Its Wave Resistance. Pmm, 1946, Vol. X, No. 1, pp. 21-32, Figs., Tables In collaboration with I. V. Girs/ (Summary in English.

SRETENSKIY, L. N.

Sretenskiy, L. N. Sur la démonstration du théorème de Hilbert-Schmidt. C. R. (Doklady) Acad. Sci. URSS (N.S.) 52, 194-197 (1964).

A well known result in the Hilbert-Schmidt theory of integral equations is that, if  $K(x, t)$  is a symmetric  $L^2$  kernel, and  $f(t)$  is an  $L^2$  function orthogonal to all the characteristic functions  $\varphi_i(t)$  of  $K$ , then  $\int K(x, t)f(t)dt = 0$ . The author deduces this by a roundabout method from the Hilbert formula, which may be written in Hilbert space notation as

$$(Kf, g) = \sum_{i=1}^{\infty} (f, \varphi_i)(g, \varphi_i)/\lambda_i,$$

the  $\lambda_i$  being the characteristic values of  $K$ . He claims the merit of avoiding all mention of the iterated kernels  $K^n$ .

The result can be proved from the author's assumptions by the following argument. Let  $(f, \varphi_i) = 0$  (all  $i$ ). Then  $(Kf, g) = \sum_{i=1}^{\infty} \lambda_i^{-1} (f, \varphi_i)(g, \varphi_i) = 0$  for all  $L^2$  functions  $g$ . Take  $g = Kf$ , and we have  $\|Kf\|^2 = 0$ ,  $Kf = 0$ . F. Smithies.

Source: Mathematical Reviews,

Vol

No.

STRETENSKIY, L. N.

On the Forces Acting Upon a Sphere While in Motion Along a Circular Path Under the Surface of a Fluid. DAN SSSR, 1946, Vol. 54, No. 9, pp. 777-778; On the Forces Acting Upon a Sphere While in Motion Along a Circular Path Under the Surface of a Fluid. Sr. Acad. Sci. URSS, 1946, Vol. 54, No. 9, pp. 773-774.

ELMS



152

532.517.4 -- 82

Diffusion of turbulent pairs. SIKTENSKI, L. N. *Bull. Acad. Sci. URSS. Dep. Sci. Tech.* (No. 3) 271-300 (1947) *In Russian.*—An examination is made of the propagation of turbulent motion in a viscous liquid under the action of two turbulent zones of opposite intensity and symmetrical with reference to the horizontal plane. A solution is attempted on the basis of approximation and two common postulates. From the energy equation of a viscous liquid, a linear equation is developed describing the conditions of flow. The analytic solution is demonstrated by two examples dealing with movement and diffusion around a circular shaft, and the propagation of vortex movement in a damping liquid from two vortex zones possessing at the commencement a motion around an almost uniform vector vortex. The path of the zone centres is investigated, together with the kinetic energy and turbulence as a function of time and initial conditions.

R. M.

ASB. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

SRETENSKIY, L.N.

Sretenskiy, L. N. Theory of tides of long period. Bull. Acad. Sci. URSS. Sér. Géograph. Géophys. [Izvestia Akad. Nauk SSSR] 11, 197-270 (1947). (Russian. English summary)

This is primarily an investigation of approximate formulae for the periods of tides on a rotating sphere entirely covered with water, and in polar seas. The author first obtains approximations by expansion in terms of  $\beta = 4a^3\omega^4/gh$ , where  $a$  is the radius of the sphere,  $\omega$  the angular velocity, and  $h$  the depth of the water. In the case of small values of  $\beta$  comparison with Hough's calculations [Philos. Trans. Roy. Soc. London, Ser. A. 189, 201-257 (1897); 191, 139-185 (1898)] and with those of Goldsbrough [Proc. London Math. Soc. (2) 14, 31-66 (1914); 207-229 (1915); Proc. Roy. Soc. London, Ser. A. 117, 692-718 (1927)] and Goldsbrough and Colborne [Proc. Roy. Soc. London, Ser. A. 126, 1-15 (1929)] shows fair agreement. For large values of  $\beta$  the method adopted is that of asymptotic expansions of integrals of differential equations for large values of the parameter involved in these equations. This method is also applied to the determination of free oscillations of periods less than 12 hours. In the case of polar seas, the author claims that his method is exhaustive and compares well with the results found by Goldsbrough by exact integration of the dynamical equations in the case of polar seas of angular radii  $14^\circ 30'$  and  $30^\circ$ .

L. M. Milne-Thomson.

see: Mathematical Reviews, 1948, Vol. 1, No. 2

HC

SRETENSKIY, L. N.

5000

\*Lyapunov, A. M. Izbrannye trudy. [Selected Works].  
Edited by V. I. Smirnov, with notes by S. N. Bernštejn,  
L. N. Sretenskij and N. G. Četaev. Izdatel'stvo Aka-  
demii Nauk SSSR, 1948. 540 pp.

822

Source: Mathematical Reviews, 1950 Vol 11 No. 8

STREMSKIY, L. N.

Commentary on the Work "Certain Problems Related to the Dirichlet Problems"  
in the book Lyapunov, A. M. Izbrannyye trudy (Selected Works), Leningrad,  
Publishing House of the Academy of Sciences USSR, 1948, pp. 457-477.

STRETENSKIY, L. N.

On the Works of S. A. Chaplygin on the Dynamics of Nonholonomic Systems. In the book of S. A. Chaplygin Issledovaniya po dinamike negolonnykh sistem. (Investigations of the Dynamics of Nonholonomic Systems), Moscow-Leningrad, State Publishing House of Technical Literature, 1949, pp. 100-107.

SRETENSKIY, L. N.

Sretenskiy, L. N. On annular waves on the surface of a rotating fluid. *Izvestiya Akad. Nauk SSSR. Otd. Tehn. Nauk* 1949, 5-18 (1949). (Russian)

Periodic annular waves upon the surface of a fluid rotating in a circular cylinder of infinite depth are considered for two cases. In the first case the fluid is rotating as a rigid body, giving a paraboloid as equilibrium surface. The treatment is restricted to small waves and small angular velocities. It is found that the effect of the rotation is to increase the frequencies over those for a nonrotating fluid. The second case considered is one in which the axis is a vortex with circulation  $\Gamma$  (velocity of a particle at distance  $r$  is  $\Gamma/2r$ ). To avoid the singularity on the axis the fluid is enclosed between two concentric cylinders. It is found again that the frequency is increased over that for a nonrotating fluid but that the amount of increase decreases as the ratio of the radius of the outer to that of the inner cylinder increases.

J. V. Wehausen (Falls Church, Va.).

Source: Mathematical Reviews,

Vol 10, No. 9

SMW RSK

SRETENSKIY, L.N.

Sretenskiy, L. N. On the waves generated by an under-water source under the surface of a sphere. *Izvestiya Akad. Nauk SSSR, Ser. Geograf. Geofiz.* 13, 473-496 (1949). (Russian)

The problem considered is the generation of gravity waves by a source of oscillating strength within a layer of water covering a solid sphere, the layer being of uniform thickness when at rest. The usual linearized free boundary condition is used but the shallow water approximation is not made. No rotation of the sphere is assumed. The method followed is to write the velocity potential as a source potential plus a remainder expanded in a series of Legendre polynomials. The bulk of the paper is devoted to a detailed study of the coefficients in the series with the ultimate aim of obtaining asymptotic formulas for the shape of the free surface. For the case when the solid core vanishes and the frequency of oscillation is high, an asymptotic formula for the free surface is given. This result is then extended to the case when the output of the source is approximately a single square pulse of short duration. The next case considered is that when the layer of water is very thin compared to the radius of the core and the source is at the bottom of the water.

J. V. Wehausen (Providence, R. I.).

Source: *Mathematical Reviews*, 1950 Vol 11 No. 6

SHCHENKIL, L.N.

Volny. (In: Mekhanika v SSSR za bridsat' let, 1917-1947. Moskva, Gostekhnizdat, 1950. p. 279-299)

Bibliography: p. 296-299.

Title tr.: waves.

AB02.M4

SO. Aeronautical Science and Aviation in the Soviet Union. Library of Congress, 1955.



SRETENSKIY, L.N.

Sretenkii, L. N. The plane problem of the propagation of waves in a basin, excited by an underwater source. Izvestiya Akad. Nauk SSSR Otd. Tehn. Nauk 1950, 321-332 (1950). (Russian)

The velocity potential and form of the free surface are derived for a line source of oscillating strength located on the bottom of a long rectangular basin. The problem is treated two-dimensionally and the usual linearized free surface condition is used. Approximate formulas for the free surface are derived for the case when the depth-to-breadth ratio is small. A continuous distribution of sources along an interval of the bottom is also considered and an approximation to the free surface derived. The methods for deriving the approximations follow closely those used in an earlier paper [Izvestiya Akad. Nauk SSSR. Ser. Geograf. Geofiz. 13, 473-496 (1949); these Rev. 11, 480].

J. V. Wehausen (Providence, R. I.)

Source: Mathematical Reviews, 1950 Vol 11 No. 8

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>AMR</p> <p>2824. <u>Stetschik, L. N.</u>, Refraction and reflection of plane waves in a liquid of the passage from one depth into another (in Russian), <i>Izv. Akad. Nauk SSSR (Int. J. Naut.</i>, no. 11, 1961, 1616, Nov. 1961).</p> <p>The passage of waves from a basin A with depth <math>h</math> into a basin B with depth <math>\infty</math> is treated with the velocity potential method. When the angle of incidence is not greater than a value dependent on the frequency and wave length, the waves enter basin B; when the angle of incidence surpasses that value, the refracted waves are extinguished and there is total reflection.</p> <p>When the waves come from basin B, they always enter basin A. Article gives formulas for the refracted and reflected waves in terms of the incident wave. W. H. Muller, Holland</p> <p>July '51</p>																			
MATERIALS INDEX										METALLURGICAL LITERATURE CLASSIFICATION									
SECTION 1										SECTION 2									
SECTION 3										SECTION 4									
SECTION 5										SECTION 6									
SECTION 7										SECTION 8									
SECTION 9										SECTION 10									
SECTION 11										SECTION 12									
SECTION 13										SECTION 14									
SECTION 15										SECTION 16									
SECTION 17										SECTION 18									
SECTION 19										SECTION 20									
SECTION 21										SECTION 22									
SECTION 23										SECTION 24									
SECTION 25										SECTION 26									
SECTION 27										SECTION 28									
SECTION 29										SECTION 30									
SECTION 31										SECTION 32									
SECTION 33										SECTION 34									
SECTION 35										SECTION 36									
SECTION 37										SECTION 38									
SECTION 39										SECTION 40									
SECTION 41										SECTION 42									
SECTION 43										SECTION 44									
SECTION 45										SECTION 46									
SECTION 47										SECTION 48									
SECTION 49										SECTION 50									
SECTION 51										SECTION 52									
SECTION 53										SECTION 54									
SECTION 55										SECTION 56									
SECTION 57										SECTION 58									
SECTION 59										SECTION 60									
SECTION 61										SECTION 62									
SECTION 63										SECTION 64									
SECTION 65										SECTION 66									
SECTION 67										SECTION 68									
SECTION 69										SECTION 70									
SECTION 71										SECTION 72									
SECTION 73										SECTION 74									
SECTION 75										SECTION 76									
SECTION 77										SECTION 78									
SECTION 79										SECTION 80									
SECTION 81										SECTION 82									
SECTION 83										SECTION 84									
SECTION 85										SECTION 86									
SECTION 87										SECTION 88									
SECTION 89										SECTION 90									
SECTION 91										SECTION 92									
SECTION 93										SECTION 94									
SECTION 95										SECTION 96									
SECTION 97										SECTION 98									
SECTION 99										SECTION 100									

SRETENSKIY, L.N.

Sretenskiy, L. N. The oscillation of a fluid in a movable basin. *Izvestiya Akad. Nauk SSSR, Otd. Tehn. Nauk* 1951, 1483-1494 (1951). (Russian)

The author considers a movable rectangular basin subject to a restoring force proportional to the displacement and filled with a liquid to some fixed depth  $h$ . First, the motion of the liquid is determined by assuming a slow harmonic motion for the basin and the linearized theory of gravity waves. From this the force exerted by the liquid upon the basin walls for a given frequency may be computed. The equation of motion of the basin, taking account of this force as well as the restoring force, now leads to an equation for the frequency. This rather complicated equation is studied in some detail. A numerical calculation with selected parameters is carried out for the case when the basin is the weight of a pendulum. *J. V. Wehausen* (Providence, R. I.).

Source: *Mathematical Reviews*,

Vol 13 No. 5

*Sam*  
*RAH*

SVETENSKIY, L. N.

Resolution of the Bessel Function, Considered as a Function of the Index, In a Series According to the Principal Part. Vestn. MGU (Herald of Moscow State University), 1951, No. 8, seriya fiz-matem i estestv nauk (Physic-Mathematical and Natural Science Series), No. 5, pp. 19-20.

Mathematical Reviews  
Vol. 13 No. 1  
Jan. 1954  
Mechanics

✓ Sretenskiĭ, L. N. On waves on the surface of separation of two flows of a liquid flowing at an angle to each other.

Izvestiya Akad. Nauk SSSR, Otd. Tehn. Nauk 1952, 1782-1787 (1952). (Russian)

Let a fluid of density  $\rho$  fill the region  $z < 0$  and a fluid of density  $\rho'$  the region  $z > 0$ . The lower fluid moves with velocity  $c$  in the direction  $OX$  and the upper fluid with velocity  $c'$  in a direction making an angle  $\theta$  with  $OX$ . The author investigates gravity waves at the interface  $z = 0$ . For motion with a velocity potential, linearized boundary conditions are derived for the interface. Velocity potentials of the form

$$\Phi = A \exp[kz + i(mx + ny)], \quad \Phi' = A' \exp[-kz + i(mx + ny)]$$

are assumed and the resulting interface studied in some detail for its dependence on  $m$  and  $n$ . J. V. Wehausen.

SRETENSKIY, L. N.

SRETENSKIY, L. N.

Obzor rabot po teorii voln za vremia s 1917 po 1949 gg. (Moscow. Universitet. Uchenye zapiski, 1951, no. 152: Mekhanika, v. III, p. 76-98)

Bibliography: p. 95-98, 82 references.

Title tr.: Survey of works on the wave theory for the period of 1917-1949.

Reviewed by J. V. Wehausen in Mathematical Reviews, 1953, v. 14, no. 5, p. 508.

Q60.M868 1951, no. 152

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

STRETSNISKII, L. N.

Sound Waves

Wave propagation from a scunding disc. Uch. zap.Mosk.un. no. 154, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952. Unclassified.

Mathematical Reviews  
Vol. 14 No. 8  
Sept. 1953  
Mechanics.

Sretenskiĭ, L. N. The propagation of elastic waves arising from the motion of a system of normal stresses on the surface of a half-space. Trudy Moskov. Mat. Obšč. 1, 167-186 (1952). (Russian)

L'auteur étudie la propagation des ondes suscitées dans un demi-espace élastique par un système de tensions superficielles se déplaçant de façon rectiligne avec une vitesse constante. Tel est le cas des microscismes provoquées par le déplacement sur la surface terrestre des régions cycloniques ou anticycloniques. En définissant les déplacements élastiques par les formules  $u = u' - \partial\phi/\partial x$ ,  $v = v' - \partial\phi/\partial y$ ,  $w = w' - \partial\phi/\partial z$  avec  $\phi$ ,  $u'$ ,  $v'$ ,  $w'$  vérifiant les équations bien connues  $\partial^2\phi/\partial t^2 = (\lambda + 2\mu)\rho^{-1}\Delta\phi$ ,  $\partial u'/\partial x + \partial v'/\partial y + \partial w'/\partial z = 0$ ,

$(\partial v \in R)$

② 2  
with

4/23/54



$\partial^2 u' / \partial l^2 = \mu \rho^{-1} \Delta u'$ ,  $\partial^2 v' / \partial l^2 = \mu \rho^{-1} \Delta v'$ ,  $\partial^2 w' / \partial l^2 = \mu \rho^{-1} \Delta w'$  et en donnant au tenseur de la tension la forme

$$X_z = -\lambda \Delta \phi - 2\mu \frac{\partial^2 \phi}{\partial x^2} + 2\mu \frac{\partial u'}{\partial x}, \dots,$$

$$Y_z = Z_v = -2\mu \frac{\partial^2 \phi}{\partial y \partial z} + \mu \left( \frac{\partial w'}{\partial y} + \frac{\partial v'}{\partial z} \right), \dots,$$

l'auteur cherche les solutions élémentaires sous la forme

$$\phi = D \exp [i(kx + my + \alpha l) + \gamma z],$$

$$u' = A \exp [i(kx + my + \alpha l) + sz], \dots,$$

Les conditions superficielles

$$X_z = 0, \quad Y_z = 0, \quad Z_v = f \exp [i(kx + my + \alpha l)]$$

permettent de mener les calculs jusqu'au bout. L'auteur étudie le cas de tensions localisées dans une bande parallèle à l'axe des abscisses et le cas du système de pressions  $P = T$  pour  $(-cl - a < x < -cl + a)$  et nulle partout ailleurs. Dans tous ces cas on peut calculer les déplacements superficiels à une distance suffisamment grande de la trajectoire du système donné des tensions normales. *V. A. Kozitsin.*

USSR/Engineering - Hydraulics, Oscillatory May 52  
Waves

"On a Method for Determining Waves of Finite Amplitude," L. N. Sretenskiy, Corr Mem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 5, pp 688-698

Develops eq for profile of steady waves of finite amplitude, formula for velocity of these waves and determines surface undulatory flow. All relations of the theory of waves and main phenomena of this theory were obtained on basis of G. G. Stokes' method improved by author. New approach to soln

219T36

of numerous problems from theory of undulatory motions of fluids helps to make corrections which are necessary due to nonlinear character of boundary conditions.

219T36

SRETENSKIY, L.N.

SRETENSKIY, L.N.

403. Sretenskiy, L.N. Motion of the Goryachev-Chapligin gyroscope. (in Russian), *Izv. Akad. Nauk SSSR Otd. tekhn. Nauk* no. 1, 109-119, Jan. 1953.

The problem of motion under gravity of a body, one of whose points  $O$  is fixed, has been solved by Euler (when the fixed point  $O$  is the center of gravity of the body), Lagrange (when two of the principal moments of inertia at the point  $O$  are equal, i.e.,  $A = B$ , and the center of gravity lies on the third axis of inertia of the body), and Mme. Kovalevskii (when  $A = B = 2C$  and when, further, the center of gravity is situated in the plane of the equal moments of inertia). In each of these cases the general solution contains five arbitrary constants of integration. Goryachev [*Mat. Sbornik* 21, 431-438, 1889] showed that the problem is also solvable when  $A = B = 4C$ , the center of gravity is in the plane of equal moments of inertia at  $O$ , and when, further, the angular momentum about the vertical through  $O$  is zero. In this case the solution contains three arbitrary constants. Finally, Chapligin [*Tran. Soc. Imp. Nat. Mosc.* 10, fasc. 2, 31-34, 1899 = *Collected Works*, Moscow-Leningrad, Izd. Tekhn. Teor. Lit., 1948, vol. I] showed that, under the assumptions made by Goryachev, another particular integral exists, and hence there exists a solution depending upon four arbitrary constants.

Let the line through the fixed point  $O$  and the center of gravity be taken as the  $Ox$ -axis, and let the center of gravity be at the distance  $\alpha$  from  $O$ ; let the Eulerian angles  $\epsilon, \omega, \varphi$ , which define the position of the principal axes of inertia  $Oxyz$  with reference to fixed rectangular axes  $OXYZ$ , of which the axis  $OZ$  is vertical, be defined as follows:  $\epsilon$  is the angle between the axes  $OZ$  and  $Ox$ ,  $\omega$  is the angle between  $Ox$ -axis and the line of intersection  $Oy$  of the

planes  $NOY'$  and  $YOZ$ , and  $\varphi$  is the angle between  $Oy$  and  $Oy'$ -axis. Further, let  $p, q, r$  be the components along the axes  $Oxyz$  of the angular velocity of the body, and let  $P$  be its weight.

The author investigates the motion of the Goryachev-Chapligin gyroscope assuming that initially: (1) The axes  $Ox$  and  $Oz$  coincide, while the axes  $Oy$  and  $Oz$  make with the axes  $OY'$  and  $OZ$ , respectively, an angle  $\theta_0$ , and (2) that a large spin is given about the  $Ox$ -axis to the body, i.e.,  $p = p_0, q = r = 0$ , where  $p_0$  is large. The results obtained may be summed up as follows: The amplitudes of the oscillations of  $\cos \epsilon$  vary in such a way as to produce beats. The period of the beats is  $4\pi p_0/3\alpha$ , while the period of the small oscillations, constituting the beats, is  $\pi/p_0$ , where  $\alpha = Pa/C$ . The axis of the gyroscope, performing the above-mentioned oscillations, passes through the equatorial plane of the fixed sphere of radius one described about  $O$  at times  $t_n = 4p_0/3\alpha (n\pi - \lambda \sin \theta_0)$ ,  $t_m = 1/p_0 (m\pi - \theta_0)$ , where  $\lambda = \alpha/2p_0^2$  and  $n, m = 0, \pm 1, \pm 2, \dots$

At each of these instants, the angle changes the sense of its variation, i.e., it passes from an increasing angle to a decreasing one, and conversely. In addition,  $\omega$  attains its relative extremum values at times  $t_n' = t_n + 4\pi p_0/3\alpha$ .

The angle  $\varphi$  varies almost proportionally to the time with velocity  $p_0$  near the instants  $t_n$ , when the axis of the gyroscope is horizontal. Near the instants of time corresponding to maximum inclinations of the axis of the gyroscope to the equator of the fixed sphere, the angle  $\varphi$  changes the sense of its variation.

E. Leimanis, Canada

3-2-55 LL

STRIMOLIKIY, L. N.

Engineers

Scientific creativeness of S. A. Chaplygin. On the 10th anniversary of his death.  
Izv. AN SSSR. Otd. tekhn. nauk No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

SRETENSKIY, L. N.

USSR/Engineering - Hydraulics, Wave  
Theory

Apr 53

"Finite Amplitude Waves Caused by Periodically Distributed Pressure," L. N. Sretenskiy, Corr Mb Acad Sci USSR

Iz Ak Nauk, OTN No 4, pp 505-511

Develops method of joint use of Euler and Lagrange variables which, according to author, simplifies solution of various problems of wave theory. In particular, this method permits to find wave motions,

276T40

occurring from periodically distributed pressures, and also makes it possible to determine entire flow of liquid in case which can not be studied by methods of theory of infinitesimal waves.

SRETENSKIY, L. N.

Among the papers presented by the First All-Union Conference on Aerohydrodynamics (8-13 Dec 1952) convened by the Institute of Mechanics, Academy of Sciences USSR, was:

"Spatial Steady State Waves of Finite Amplitude" by Sretenskiy, L. N.

SO: Izvestiya AN USSR, Otdeleniye Tekhnicheskikh Nauk, No.6, Moscow,  
June 1953, (W-30662, 12 July 1954)

SRETENSKIY, L. N. Cor, Mbr. AS USSR

"Waves of Finite Amplitude on the Surface of a Three-Dimensional Flow,"  
report given at the All-University Scientific Conference "Lomonosov Lectures",  
Vest. Mosk. Un., No.8, 1953.

Translation U-7895, 1 Mar 56

SRETENSKIY, L.N.

Motion of three points on rotating orbits. Vest.Mosk.un. 8 no.2:15-19 F  
'53. (MLRA 6:5)

1. Kafedra gidromekhaniki. (Problem of three bodies)



CRETENSKIY, L. N.

"Comments on the Posthumous Work of N. N. Luzin on the Integration of the Equations of Buckling of the Surfaces on the Principal Basis," Usp. mat. Nauk, Vol.3, No.2 (54), pp 75-82, 1953

Written on the third anniversary of N. N. Luzin's death. An editorial note states that certain unpublished manuscripts of N.N.Luzin will appear in this journal, with articles on his works.

250T83

SRETENSKIY, L.V.

PETROVSKIY, I.G.; VOVCHENKO, G.D.; SALISHCHEV, K.A.; SERGEYEV, E.M.;  
MOSKVITIN, V.V.; SRETENSKIY, L.V.; GEL'FOND, A.D.; GOLUBEV, V.V.;  
ALEKSANDROV, P.S.; SOBOLEV, S.L.; BAKHVALOV, S.B.; OGUBALOV, P.M.;  
KREYNES, M.A.; MYASNIKOV, P.V.; ZHIDKOV, M.P.; GAL'PERN, S.A.;  
ZHEGALKINA-SLUDSKAYA, M.A.

Vsevolod Aleksandrovich Kudriavtsev; obituary. Vest.Mosk.un. 8  
no.12:129 D '53. (MLRA 7:2)  
(Kudriavtsev, Vsevolod Aleksandrovich, 1885-1953)

СРЕТЕНСКИЙ, Л. Н.

Mathematical Reviews  
Vol. 15 No. 1  
Jan. 1954  
Mechanics

Applied Mech. Reviews  
V. 7, Mar 1954

V Sretenskiĭ, L. N. Spatial problem of determination of steady waves of finite amplitude. Doklady Akad. Nauk SSSR (N.S.) 89, 25-28 (1953). (Russian)  
The author considers three-dimensional progressive waves of finite amplitude in infinitely deep water. He assumes a velocity potential of the form

$$\varphi(x, y, z) = -\epsilon x + \{a_{11} \exp k_{11} z \cos ny + a_{12} \exp k_{12} z \cos 3ny + \dots\} \sin nix + \{a_{20} \exp 2k_{20} z + a_{22} \exp 2k_{22} z \cos 2ny + \dots\} \sin 2mx + \dots$$

expands the  $a_{ij}$  and coordinates (Lagrangian) in powers of a small parameter  $\epsilon$ , substitutes in Bernoulli's equation, compares coefficients, etc. He finally obtains equations which can be used to relate the wave velocity, amplitude, and lengths in the two directions. There is mass transport as for plane waves. [Cf. Fuchs, Gravity waves, pp. 187-200, Nat. Bur. Standards Circular 521, Washington, D. C., 1952; these Rev. 14, 1028.]  
J. V. Wehausen.

SRETENSKIY, L. N.

USSR/Physics - Hydrodynamics

1 Jul 53

"Problem of Turbulence in a Wave," A. A.  
Dmitriyev and T. V. Bonchkovskaya

DAN SSSR, Vol 91, No 1, pp 31-33

Solve the system of eqs set up by L. N. Sretenskiy  
(Trudy TsAGI Works of the Central Aerohydro-  
dynamical Institute, No 541, Part 1 (1941)), for  
the movement of a viscous liquid under the in-  
fluence of wind currents and sea-bottom friction.  
State that turbulence of waves has received little  
study, according to the literature. Presented by  
Acad V. V. Shuleykin 20 Apr 53.

266T93

LYAPUNOV, A.M.; SRETENSKIY, L.N., otvetstvennyy redaktor; KOLMOGOROV, A.M., akademik; SMIRNOV, V.I., akademik; SUBBOTIN, M.F.; ISHLINSKIY, A.Yu.; MIGIRENKO, G.S., kandidat fizicheskikh-matematicheskikh nauk; PETKEVICH, V.V., kandidat fizicheskikh-matematicheskikh nauk; GERMOSHENOV, A.V., redaktor; ALEKSEYEVA, T.V., tekhnicheskiy redaktor.

[Collected works] Sobranie sochinenii. Moskva, Izd-vo Akademii nauk SSSR. Vol. 1. 1954. 446 p. (MIRA 7:11)

1. Chlen-korrespondent Akademii nauk SSSR (for Sretenskiy and Subbotin) 2. Deystvitel'nyy chlen Akademii nauk SSSR (for Izhlinskiy) (Liapunov, Aleksandr Mikhailovich, 1857-1918) (Mathematics)

FD 348

USSR/Geophysics - Sound propagation

Card 1/1

Author : Sretenskiy, L. N.

Title : Propagation of sound in an isothermic atmosphere

Periodical : Izv. AN SSSR, Ser. geofiz. 2, 134-142, Mar/Apr 1954

Abstract : Treats the problem concerning the propagation in the atmosphere of the sound from a point source taking into account the force of gravity. By means of the Fourier-Bessel integral the author constructs the potential of the acoustic field for which he obtains asymptotic expressions convenient for the case of great distances from the source. No references.

Institution : Marine Hydrophysics Institute, Acad Sci USSR

Submitted : November 6, 1953

SOV/124-57-7-7931

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 67 (USSR)

AUTHOR: Sretenskiy, L.N.

TITLE: Motion of a Vibrator Underneath the Surface of a Liquid (Dvizheniye vibratora pod poverkhnost'yu zhidkosti)

PERIODICAL: Tr. Mosk. matem. o-va, 1954, Vol 3, pp 3-14

ABSTRACT: Investigation is made of the problem of the motion caused by a pulsating source underneath the surface of a heavy liquid of infinite depth. This problem was investigated for both the spatial and the two-dimensional cases in the work of the reviewer (Prikl. matem. i mekhanika, 1946; RZhMekh., 1956, abstract 1491). With respect to the spatial case the author treats in greater detail the asymptotic aspect of the disturbed surface of the liquid at great distances from the source.

M. D. Khaskind

Card 1/1

Sretenskiy, L. N.

USSR/Mathematics

Card 1/1      Pub. 22 - 5/47

Authors       : Sretenskiy, L. N., member corresp. of the Acad. of Scs. of the USSR

Title          : About the soleness of determination of the shape of an attracting body from the values of its outer potentials

Periodical     : Dok. AN SSSR 99/1, 21-22, Nov 1, 1954

Abstract       : Referring to Novikov's lemma and theorem, dealing with the shape determination of attracting bodies (published in 1938), the author describes his own method, based on the Novikov lemma, of the soleness in determination of the shape of an attracting body strictly from the values of outer potentials of the latter. One reference (1938).

Institution    : Navy Hydro-Physical Institute of the Acad. of Scs. of the USSR

Submitted      : ...



USSR/Geophysics - Surface of separation

FT-2891

Card 1/1 Pub. 45 - 2/11

Author : Sretenskiy, L. N.

Title : Cauchy-Poisson problem for the surface of separation of two flowing streams

Periodical : Izv. AN SSSR, Ser. geofiz., Nov-Dec 1955, 505-513

Abstract : The author considers the problem of the gravitational waves that arise on the horizontal surface of separation of two flowing fluids. He studies in detail the particular case of given initial disturbance. No references or acknowledgements.

Institution : Marine Hydrophysics Institute, Academy of Sciences of the USSR

Submitted : July 22, 1955

STREPNENSKIY, L. N.

The Formation of Regular Sequences of Waves. In the book: tezisy dokladov mekhaniko-matematicheskogo fakul-tete Moskovsk un-ta (Thesis of Reports of the Mechanico-Mathematical Faculty of Moscow Institute), Moscow, Moscow State University, 1955, p. 16. (Jubilee Scientific Session Dedicated to the 200th Anniversary of the University, 9-13 May 1955).

SRETENSKIY, L.N.

Occurence of waves of terminal amplitude in a round canal. Trudy  
MGI 6:3-9 '55. (Waves) (MLBA 9:6)

SRETENSKIY, L.N

Distr: 494f

925. Sretenskii, L. N., Cauchy-Poisson problem for the separation surface of two flow surfaces (in Russian), Izv. Akad. Nauk SSSR, Ser. geofiz. no. 6, 505-513, 1955; Ref. Zh. Mekh. 1956; Rev. 5193.

First of all a class of particular solutions of the Laplace equation is sought

$$\varphi_1(x, y, t) = F_1(t) e^{k(y+ix)},$$

$$\eta = kH(t) e^{ikx}$$

$$\varphi_2(x, y, t) = F_2(t) e^{-k(y-ix)},$$

which satisfy the conditions for union of the pressures on the division line of the flows and also kinematic conditions. Here  $\varphi_1$  and  $\varphi_2$  are the velocity potentials of the upper and lower flows,  $\eta = \eta(x)$  is the division line. The functions which were found are used for construction of the Fourier integral which gives a formal solution of the Cauchy-Poisson problem in the form

$$\varphi_1(x, 0, 0) = f_1(x) \quad \varphi_2(x, 0, 0) = f_2(x)$$

The integral found is convergent at very strict limitations, which were imposed on the character of the tendency to zero of the functions  $f_1$  and  $f_2$  at  $|x| \rightarrow 0$ . The detailed analysis is given for the case when

$$f_1(x) = e^{-b^2 x^2}, \quad f_2(x) = 0$$

STRETENSKIY, L. N.

Potential Theory. BSE, Second Edition, Vol. 34, 1959, pp. 272-273, Figs.  
Bibliography of 4 Titles.

STRETENSKIY, L. N.

On Two Problems Relating to the Theory of Gaseous Jets. IX International Congress of Applied Mechanics. Brussels. 1956. Book of Abstracts. Section I p. 148. Paralled Text in French.

LYAPUNOV, Aleksandr Mikhaylovich, akademik; SRETENSKIY, L.N., redaktor;  
KOLMOGOROV, A.N., akademik, redaktor; SMIRNOV, V.I., akademik,  
redaktor; SUBBOTIN, M.P., redaktor; ISHLINSKIY, A.Yu., redaktor;  
MIGIRENKO, G.S., kandidat fiz.-mat. nauk, redaktor; PETKEVICH,  
V.V., kandidat fiz.-mat. nauk, redaktor; KIRNARSKAYA, A.A., tekhnicheskii redaktor.

[Collected works] Sobranie sochinenii. Moskva, Izd-vo Akademii nauk SSSR. Vol.2. 1956. 472 p. (MLRA 9:6)

1. Chlen-korrespondent AN SSSR (for Sretenskiy, Subbotin).
2. Deystvitel'nyy chlen AN USSR (for Ishlinskiy)  
(Dynamics) (Differential equations)

SRETENSKIY, L.N.

Excitation of elastic oscillations of a semiplane by wave motions  
of a liquid. Biul.Sov.po seism.no.2:12-26 '56. (MIRA 9:9)  
(Tidal waves)



SRETENSKIY, L. N.

534.232

Emission of Sound by a Rotating Dipole. L. N. Sretenski. (Akust. Zh., Jan.-March 1958, Vol. 2, No. 1, pp. 93-98.) A theoretical paper.

3266

1

~~SKTENSKIY, L. N.~~

SRETENSIY, L. N.

2246. Sretenskii, L. N., Directional propagation of waves from a region undergoing external pressure changes (in Russian), *Prikl. Mat. Mekh.* 20, 3, 349-361, May-June 1956.

Paper is a thorough analysis of wave action in horizontal directions in an infinitely deep mass of a fluid subjected in a limited part of its surface to pressure changing its intensity with time in accordance with laws of harmonic motion. Theoretical investigations are based on the assumption that the potential of velocity  $\varphi(x, y, z, t)$  complies with Laplace equation for both extreme conditions (for surface  $z = 0$ , and for infinite depth  $z = -\infty$ ). Reference is made to Whittaker, E. T., and Watson, G. N., "A course of modern analysis," par. 94. See also Whittaker, E. T., "A treatise on the analytical dynamics of particles and rigid bodies," Dover Publications, New York, 1944.

J. J. Polivka, USA

2

4E4c  
4E3d

...MIL, L.H.  
Univ. Moscow

"Sur La Resistance Due Aux Vapels D'un Fluide Visqueux,"  
paper submitted at Symposium on Behavior of Ship in a Seaway, Wageningen,  
Netherlands, 7-10 Sep 57.